Written: 10Th November 2022
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Green = to elaborate or learn
Blue = incomplete, needs study and reference
Orange = to be added to this document
Purple = to establish and explain

(Incomplete Notes Of)

Null Hypothesis Test Of The Human Etiology Delusion In Schizophrenia Spectrum Disorder

The following document is an excerpt or incomplete research outline to test the significance and indicate the commonality of "The Human Etiology Delusion". To date (2026), no one has measured how common The Human Etiology Delusion is, and this is the first (incomplete) document outline of a novel approach to researching such a delusion. What is presented is the notes of the research project outline, that have yet to be filled in and completed.

Schizophrenia is a severe mental disorder that is highly heterogeneous with discordant pathophysiology and psychopathology. The symptoms can be positive (including hallucinations across all modalities), delusions (six primary classifications) and/or negative (anhedonia, flattened affect, social withdrawal, lack of follow through), plus inattention, disordered thinking, movement disorders, and paranoia. As an "expert by experience", my "high functioning" status affords me objectivity and articulation skills of lived experience. I am a consultant on the NSLHD Lets Talk About Voices website, and I remain a leading author on Psychforums.com Schizophrenia website (username: swilliams).

The etiology of Schizophrenia Spectrum Disorders (SSD) remains an unknown interrelation between genetics and environmental factors, such as childhood trauma and adversity, social isolation, substance abuse, complications during pregnancy and birth, and temporal neural architectural changes and pathogenesis. SSD neurodegenerative factors include oxidative stress, antipsychotic medication, substance abuse, smoking and alcohol, and they contribute to deteriorating structural brain changes, resulting in suffering and distress, elevated suicide levels, comorbidity and premature mortality.

The new etiological synthesis of schizophrenia indicates that an interaction between host genotype, microbe infection, and chronic stress causes schizophrenia, with neuroinflammation and gut dysbiosis mediating this etiological pathway = parasite x genotype x stress model.

There are many discussions and studies on the topic of SSD and agency, and characteristic misattributions of agency. In schizophrenia, the auditory verbal hallucinations (AVH) that are attributed to other agents (delusions of influence) are of particular interest since (a) AVH seem to be generated in a manner very similar to regular speech production (Stephane, Barton, & Boutros 2001) and are sometimes observable in the form of sublingual vocalisations (Arbib, Mundhenk 2005). AVH in SSD are notoriously malevolent, and are notably harassing, persecutory, accusatory, contemptuous, tormenting, disparaging, and vilifying in their conveyed disposition. The hallucination data (AVH) will be analysed descriptively for inherent evidence of independent agency, such as narcissism, ASPD, vocabulary, attitude, and sentiment generally.

The focus of this study is on 'second order" phenomenological elements used to elicit intersubjective responses as Auditory Verbal Hallucinations (AVH), recording the literatim hallucination details in order to assess agency, and evaluating and measuring the salience and antecedent primacy of AVH in the conflation of delusions. This study transforms an opinion into a null hypothesis: "That there is agency evident in AVH".

N_0: The hallucinations in schizophrenia exhibit evolutionary social agency effects, in temporality implicating elements of goals, planning, expectation, foresight, and what may be described *ex post facto*, as intention and deceit, evident in AVH phenomenology in *prima facie* form, and in *post hoc* statistical analysis.

A null hypothesis is a type of conjecture in statistics that proposes that there is a difference between certain characteristics of a population or data-generating process. The phenomenological data from this study should show that the mean of agency factors in the population of AVH samples, does not equal the specified population mean of samples. Data will be attained **from stimulus-response experiments** and from regular 1st person dialogue journal entries.

Initially, case studies are undertaken of each participant to provide insight and context into the participants explanatory beliefs about their voices, as well as information about the frequency, persistence and responsiveness (first order phenomena) of the consumers AVH (voices), screening for specific evidence of preexisting delusions. Case studies collect and provide narratives that contextualise subjective appraisals of polymodal hallucinations, giving insight into integrating relationships between conceptualised frameworks of interpretation. **The case studies will be obtained by the interviewer asking a small number of questions, guiding the statements made in responses**. When the interview has concluded, the participants will be briefed on how to complete first person transcript journals, and how to proceed with second order phenomenological stimulus-response structured investigation of hallucinations (AVH).

Conventional "first order" phenomenological constructs relating to AVH in SSD are generic and descriptive. They include for example, 1) the number of voices, 2) frequency of voices, 3) the location of voices, etc **(see XXXXX.jpg)**. The novel "second order" constructs **used in this study** are originally derived from the freely offered testimonials of experts by experience on mental health forums. These narratives include statement that are **resolved and adapted** into questions, whose constructs are specifically chosen because they implied **external agency** and human etiology of SSD. In this study, they are expounded and **'psychoenergetically'** communicated as questions, skewed into non-psychopathological statements to elicit precursor responses as AVH. These stimulus-response evocations are 'asked' or 'enquired' silently or vocally to the presence of AVH voices by the participant . For example, 1) "Do you work in shifts?", 2) "Are you American?", 3) "Do you own a gun?", 4) "Are you getting paid to harass me?". Conforming with scientific method protocol, ex-ante experimental results are exegetically compared to data predictions expected in hallucination response content (Table 1). The collated data is cross-sectional in nature, but will be collected longitudinally, due to *de facto* - *ipso facto* **expectations of the reluctant and agile behaviour governing availability of scores for the dependant variable**.

The teleological phenomenology data will be partitioned into 2 analytical groups: 1) AVH asseverations resulting from dialogue and discourse with the subject, recorded in journalised 1st person transcripts recording the exchanges between the participant and their voices, 2) AVH responses to specific dialectic ontological questions 'asked' ('spoken'/'enquired') by the participant to their voices. The AVH responses are in fact hallucinations, and evince SSD. In schizophrenia, the auditory verbal hallucinations (AVH) and movements of the hand that are attributed to other agents (delusions of influence) are of particular interest to us since (a) AVH seem to be generated in a manner very similar to regular speech production (Stephane, Barton, & Boutros, 2001) and are sometimes observable in the form of sublingual vocalizations. The conclusion of this work examines pathogenesis of agency, discepting putative causes of established agency **anomalies** such as self-monitoring and attribution errors of sensory inputs.

Different corollary models (ego- and allo-centric) can be utilised to describe agency including "feelings of agency" and "judgements of agency" (Pantelis, Corlett 2020). Each model is weighted according to reliability and combined, generating a higher-level "sense of agency."

Sample Frame

The sample (frame) is drawn from older individuals having treatment resistant AVH. It is proposed **(newly)** that there exists a "delusions life cycle", comprised not as a sequential progression through the different categories of delusions **(see xxxxx), but an elimination of each category of delusion, until all have been traversed**. There are a limited number of explanations expatiated in the forums for the origin of hallucinations. Pseudohallucinations differ from hallucinations in the auditory domain based on "a distinction between hallucinatory voices heard within the subjective inner space (pseudohallucination) and voices heard in the outer external space (real hallucinations) with differences in their sensory richness" (López-Silva , Cavieres, Humpston 2022). **Thus it is necessary to limit the sample to individuals who have made considerable progress through the "Life cycle of delusions" in SSD.**

A survey instrument will collect participant responses across the novel phenomenological strata

Then participants will be instructed on recording 1st person transcripts, that can be analysed descriptively to represent quantitative characteristics of pre-existing conventional phenomenology, and novel intersubjective structures. This data can be tokenised to measure emotional valence, malevolence / benevolence, contrasts in disposition, behavioural responses and disconfirmatory or antecedent delusional constructs. Prior beliefs enforce perceptual interpretation into pseudo-coherent realities, inevitably procuring trust, despite the implausibility or the conclusion. Jaspers (in *General Psychopathology* (1913)) indicates that phenomenological enquiry identifies delusions as a loss of context in experiential-perceptual domains, revealing a neurobiological substrate.

Establish participant limitations and unreliability

In order to exclude subvocalisation and misattribution as potential sources of the phenomenology of AVH, the following principles are applied to an experiment based on second generation phenomenology, detailed below, after the introductory explanations of the principles that support the application of second generation phenomenological investigation:

- Source monitoring (SM) is the metacognitive ability to determine the origin of one's experiences. SM is altered in primary psychiatric psychosis, although relationships between SM subtypes, other cognitive domains and symptoms are unclear. three main SM subtypes:
  - (i) internal SM (ISM) discriminates mental experiences originating from the subject, such as imagined or performed actions;
  - (ii) external SM (ESM) discriminates between externally-generated stimuli (for instance, whether an action was presented via written or spoken words);
  - (iii) reality monitoring (RM) differentiates whether the origin of an experience was internal or external (world/self differentiation). RM errors can be
    - internalizing (RMi) when external stimuli are confused as internally-generated, or
    - externalizing (RMe) when internally-generated stimuli are attributed to an external source.

- and metacognition contributes to difficulties integrating information and hence impedes insighttasks of metacognition appear to be associated with symptoms, functioning, and neurocognition in schizophrenia. Deficits in metacognition within the narratives of persons with schizophrenia are linked with symptoms, quality of life, neurocognition and poorer awareness of illness.

Identify And Encapsulate The Following Response Statement Principles:

i. No answer /refusal to answer

ii. "...refuse to answer" or "we don't answer questions"

iii. "we/I/us.."

iv. Distraction techniques

v. Irrational statements

vi. Memory disputes where the voices dispute the accuracy of your memory

Identify And Encapsulate The Following Response Statement Types:

I. Command / instruction / directive
   a) For self
   b) About / for other individuals
   c) Referring to utilisation or approach to a thing / object / operation via observation and vision
II. Technology - YouTube mixes, replay of audio files & samples / signal processed sounds
III. Questioning / why / request or endeavour to seek clarity (from hostility to congeniality)
IV. Ultimatum
V. Observation / "what is..." / "what are..."
VI. Insult
VII. Third person narration or commentary
VIII. Group discussion excluding you (2nd person, commentary)
IX. Abnormal phrasing or curious use/misuse of familiar words
X. 1ST person indicators
XI. SLI & pluralism problems

Identify And Measure Any Indicators Of Sociopathy (APD) / Narcissism (Narcissistic Personality Disorder)

1. We are bad people / I am a bad person
2. I / you are going to hell
3. My voices also give me headaches.
4. Do you repeatedly lie to or trick others for your own gain or pleasure?

5. Do you consistently fail to fulfill work obligations?
6. unable to empathize with others dealing with difficult situations? *
7. If you hurt someone else's feelings, do you lack remorse or guilt?
    a) Therefore repetitious pain and hurting
8. Do you consider yourself superior to others? *
9. Do you use charm or wit to manipulate others for your own benefit? *
10. a lack of moral or ethical development, an inability to follow approved models of behavior, deceitfulness, and the shameless manipulation of others.
11. Fear has been noted as a feature of voice- hearing in prior phenomenological work … (observed that only 16% of their participants reported fear in association with, or prompting the onset of, their). (fear can be elicited in different ways. Most notably,the voices themselves can take 'demonic' and frightening forms (for instance, one participant, Bill, heard a 'barking' voice), and the voices may make explicit and violent threats to the voice- hearer or others. NOT ANYMORE Swearing, physical threats, and coercion. ---> three key ways in which fear can be amplified = in the context of voice- hearing: realization, loss of reality, and potentiality
12. towards suicide or self- harm
13. Voices confessions of personal history, proximity, nostalgia
14. As the publishers of this free online 3 Minute Sociopath test, which allows you to screen yourself for the signs and symptoms of this personality disorder, https://www.idrlabs.com/3-minute-sociopathy/test.php
15. Voices disrupting or preventing sleep in this way were reported by other participants as well, often where the potential for the voice to speak or 'act' in other ways filled the voice- hearer with dread of what was about to happen.

One possibility is that in some MMHs (mutli modal hallucinations), the auditory and the visual (for example) come packaged together— if generated by the same underlying cognitive or neural process (e.g. being linked to social agency, or 'person-selective' brain regions such as

the posterior superior temporal sulcus (Tsantani et al., 2019)), hallucinations might therefore be identified as the same agent (for more discussion, see Fernyhough, 2019).

Table 1 - Predictions
Used as a research method, that can be applied from pre-existing hypotheses regarding the causes of AVH. To utilise, fill in the prediction with a sample answer that satisfied the hypothesis of the causal source of AVH:

DATE:	**ID:**		
Phenomenal Question	**Prediction**	**Response 1**	**Response 2**

Second Generation Phenomenal Question Examples:
1. how old are you?
2. how many of you are there?
    a) Record number stated
    b) Record number perceived
3. are you doing shifts?
4. are you getting paid?
5. Are you evil, or satan and lucifer worshippers?
6. Do you own a gun?
7. Are you American?
8. What do you want?
9. What do you want from me?
10. Do you know my birthday date?
11. What time Is it?
    a) mark down gender of voices
12. Have you got a wife? What is her name? What about your son or daughter?
13. Ever been on a holiday? Where to? For how long?

14. Can you read?
    a) Tell me what this says…(write something onto the research paper)
15. Are you a dream I'm having?
16. Whats your national anthem? Is it The Stars And Stripes Forever?
17. Do you know why communists are always drinking tea?
18. social and body image anxieties - Are you very fat?
19. Do you have any triggers?
20. How many pornographic movies have you made?
21. Do you smoke Lucky Strike or Joe Camel?
22. Well do you vape, or smoke a curly pipe?
23. Did you like watching Monty Pyhton? Did it make you laugh properly, out loud?
24. Do you or have you recently had any visual hallucinations?
    a) Would you elaborate please?
25. Do you own a car?
26. Can you drive a car?
27. What do you think of pedophiles?
28. Have you got lots of friends?
    a) How many email contacts do you have?
29. Do you know the month at the moment?
    a) What is the current date and time?

Cluster One (Antagonists)	Cluster Two (Protagonists)
Socio eceonomics	
No Demographics	
Psychometrics - by inference (psychographic data + behavioural data + evidence from phenomenology)	
CSA	Genetics
ASPD	Stress Sensitivity
Below Minimal Education	Personality
	Neuroinflammation

N0 = Recording these does reduce valence and amplitude of VH and AVH
N1 = Recording these fails to reduce valence and amplitude of VH and AVH

Teleological experiments are then conducted to operationalise phenomenological triggers to induce specific tokens in the results.
Beliefs about Voices Questionnaire (BAVQ-R)
a method for assessing multiple domains of metacognition by rating a narrative generated by a semi-structured interview with an abbreviated form of the Metacognition Assessment Scale (MAS).

The suicide death statistics and mortality of schizophrenia is alarming, though literally speaking, it provides passivity to the statistics describing the comorbidity that results from the psychopharmacology prescribed (as the only weapon psychiatry has) to treat psychosis. It is to be differentiated from the suicide death rate of schizophrenia or psychosis that occurs as a feature of a number of psychiatric diagnoses. However the suicide death rate from schizophrenia is unique, because of the intrinsic, possibly insurmountable complications, uncertainties and difficulties in determining the cause of death. Schizophrenia brings insufferable misery, pain, destitution, isolation, fear, and lack of hope, stemming from the combination of positive and negative symptoms. The issues around cause of death include not having a category of "suicide due to schizophrenia" as the reason for death on an authoritative death certificate, and some authors indicate this has led to a reported 88% error in epidemiological studies about the lethality of schizophrenia. This study examines a single aspect of phenomenology that underpinning delusions that directly impacts the suicide rate attributable to Schizophrenia Spectrum Disorders (SSD).

- Do Secondary research articles by experts by experience
- I am not misattributing (in the psychiatric sense and definition of the word. Here is proof: youtube.com/watch?v=LqGY47XyeG4 "Schizophrenia Voices -Auditory Verbal Hallucinations - Simulation". The transcript

for this audio / auditory simulation is available using the YouTube transcript select option. In the transcript, at the 0:55 minute point, the female 'hallucination' says "a special problem with your homework". I did not mention it to this 'girl' (JD), but I have known since 1st year as an undergraduate, that you don't don't do "tests" and "homework" at a tertiary level, or as an adult tertiary student, and I was 48 years old at the time she 'said' this to me, and I had an undergraduate degree, post graduate completions, and 4 diplomas at the time.

If you want to send an anonymous email of support regarding any particular aspect of the human etiology of schizophrenia, then please read the following:
Go to mail.com, where you can choose an email address, including the domain name
set up an anonymous (temporary) email account using a false first name, and false last name
send your email comments about human caused schizophrenia to xxx.xxx@xxx.xxx.xx
Go back to mail.com and delete the email account (if you want to)

- We conclude by arguing that the subjective and intersubjective dimensions of agency and ownership cannot be considered in isolation from one another, but instead form an interdependent pairing.
- those with external hallucinations on the severity of other symptoms. However, they reported their hallucinations to be more emotionally distressing, longer-lasting, less controllable, and less likely to remit over time. ….might miss the contextual phenomenological complexity in which AVHs arise, and with this, a number of key perceptual transformations that accompany immediate experiences of hallucinatory voices might be neglected
- perceptual alterations in the factory of conscious reality would lead to a complete variation of the Gestalt-Structure of experience,
- They also offer rich possibilities for voice hearers in making sense of their experiences outside the relatively narrow frameworks of conventional psychiatric frameworks.

- Delusion has always been a central topic for psychiatric research with regard to etiology, pathogenesis, diagnosis, treatment, and forensic relevance.

- "the mechanisms of AVH remain elusive, research consistently implicated disordered language processes (5)"
- In health, inner speech is recognized as one's own and experienced in internal space (inside the head). Although not invariably, subjects with AVH report hearing the "voices" of others and often experience these "voices" in external space—hereafter, phenomenological agency and spatial externalizations, respectively (7, 8). From the perspective of inner speech generation disorder, these aspects of AVH experiences point to agency and spatial externalizations of inner verbal thought at a cognitive level. --->

- A Bias Against Disconfirmatory Evidence Is Associated With Delusion Proneness in a Nonclinical Sample - **has several test instruments mentioned** Sixty-eight undergraduate students were administered the Schizotypal Personality Questionnaire (SPQ), the BADE test, the Rey Auditory Verbal Learning Test (RAVLT), the Wisconsin Card Sorting Test (WCST), the Trail Making Tests A and B (TMT), and tests used to estimate IQ. Factor analysis of all cognition measures resulted in a 6-factor solution, 4 of which reflected the 4 domains of neuropsychological tests (WCST, RAVLT, TMT, and IQ), and 2 of which reflected different aspects of the BADE test: Initial Belief and Integration of Disconfirmatory Evidence. This solution suggests that BADE measures were independent from the other cognitive domains measured. Integration of Disconfirmatory Evidence was the only factor that correlated with delusion-content subscales of the SPQ, providing support for the contribution of a BADE to delusional ideation.

1. (conduct an "inner speech" survey of clinicians and other healthy subjects, to compare to SSD 'misattributions'
2. Furthermore, with different experiments, studies examined the distinction between speech generated during the experiment by self or other (speech generation designs) (13–18). While the results of these studies were inconsistent, meta-analysis of studies up to 2012 suggests S–O misattribution in hallucinating subjects (9). However, if indeed AVH result from speech generation disorder, non-speech stimuli and speech perception experiments are sub-optimal for the evaluation of S/O distinction of speech relevant to AVH.
3. S/O distinction experiments, speech perception and speech generation paradigms were used. In the former, subjects distinguished between speech delivered via headphones simulating IS perception and that simulating ES perception (20). In the latter, subjects distinguished between sentences they silently read (experienced in IS) and sentences they read aloud (experienced in ES) (10, 21, 22). All speech generation studies (10, 21, 22), unlike that of speech perception (20), reported IS/ES distinction impairment. Differences in the populations studied [schizophrenia patients (10, 21, 22) vs. healthy subjects

prone to all types of hallucinations but not necessarily AVH (20)] might also contribute to the discrepancy. Furthermore, as argued above, speech generation paradigms might provide more accurate appraisal of speech disorders pertinent to AVH.

Rationalise delusions, that are classified according to source:

S: how do you know, and what criteria did you use to establish her deceasement?
JD: I used a simple method of doing things
S: where are you located Julia, and where is Ron?
JD: I am in Delaware and Ron is in Delaware too
S: why are you hurting people, if you think you are?
RT:because...I am having anal sex with Pamela Kingham at the moment
S:is she enjoying it do you know?
RT: I think she is loving it.
S:May I politely ask where you are?
RT:Delaware
S:delaware where
RT: delaware, in the usa
S:are you on drugs, and are you really JD?
RT:I'm on drugs at the moment

The data will be applied to refutation of a contentious null hypothesis. So incendiary, that it has been designated as a proxy. Please consider the following: If your perceptions indicated you were broadcasting a thought of "why me?" , when a voice responded to you, stating their name is Jennifer, "I am an American girl", who has a significant other partner, and Peter, says "Jennifer says you have to remain optimistic", "my friend hates you and is going to be mean and cruel to you", then you hear "get up and open the window and jump out!", how would you phrase a null hypothesis to account for the phenomena described?

1. This is misattributing my usual inner dialogue, implicating dopamine dysregulation
2. This is elicited spontaneous activity from neurobiological morphological degeneration modulating metacognitive deficits
3. Subconscious projections of unfulfilled wishes, guilt, self critique, and suppressed emotions
4. This is not human style communication and interactions.

It explains most delusional categories, but does not readily account for the mechanisms propagating hallucinations. However, the particular null hypothesis will be extremely controversial, and not supported by many. Therefore, an argument supported by data, congruent with the Maastricht Apporach and the Hearing Voices Movement will be postulated, concluding with polemical assertions of minimising distress, coping, quality of life propositions that may be measured *ex post facto*.

or in their absence,
This is important to reduce distress, optimise the effectiveness of coping startegies, minimise co-morbidity, and enhance quality of life.

Agency, confounding models

, common, *prima facie* interpretation of AVH. Source Moonitoring (SM) and Reality Monitoring,

variables, detailing teleological elements that result in non-psychiatric attributions.

N_0: The hallucinations in schizophrenia evince evolutionary social agency effects, implicating expectations and foresight, across temporal alteration, directed by intentional deceit after elicitation of goals, verbally conveyed.
N_1 (all components following, are subsets of the null hypothesis) Spontaneous activity account
. Source monitoring and reality monitoring

AGENCY

- ego-centric and allo-centric models comparing several hypothesis regarding how may be impacting the data collected. (see Embodied Predictions, Agency, and Psychosis) https://www.frontiersin.org/articles/10.3389/fdata.2020.00027/full
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Experiments
1) Phenom inducements
2) Inner dialogue examples from psychiatrists
    a) Misattribution
3) How is dopamine interrelated with depression

ontological analysis of genes hereditry gene expression dynamics and subsequent

Delusions

- There are four main types of delusions: bizarre, non-bizarre, mood-congruent, and mood-neutral.

- delusions arise from disturbances in basic information integration processes,1–4 particularly from an aberrant interplay between prior beliefs and present sensory information.
- prior beliefs are used to enforce perceptual interpretations with a higher prior probability by attenuating improbable sensory information; dysfunctions in this preference of more probable interpretations will therefore result in the tendency to place trust in implausible explanations and thus to delusion proneness. [This evinces the epsitemological argument that despite a high degree of implausibility or unlikelhood of the (interpreted) conclusion, trust *IS* procurable, if not unavoidable, so "managing"

- phenomenological approach suggests that delusion is formed through loss of context in its experiential-perceptual origins. This is consistent with the more recent neurobiological models.
- defining delusions operationally7 nor with the practical problem of how to differentially diagnose a genuine, primary delusion (echte Wahnidee) from merely delusion-like ideas (wahnhafte Idee) and, therefore, whether we are dealing with schizophrenia or personality disorder **(ASPD)**

- we ask whether delusions can be adaptive notwithstanding their negative features. Can they be a response to a crisis rather than the source of the crisis? Can they be the beginning of a solution rather than the problem? Some of the psychological, psychiatric, and philosophical literature has recently suggested that they can.
- Can they be the beginning of a solution rather than the problem? Some of the psychological, psychiatric, and philosophical literature has recently suggested that they can. We consider different types of delusions and different ways in which they can be considered as adaptive: psychologically (e.g., by increasing wellbeing, purpose in life, intrapsychic coherence, or good functioning) and biologically (e.g., by enhancing genetic fitness).
- Although further research is needed to **map the costs and benefits of adopting and maintaining delusional beliefs,**

1) somatic-Kinesthetic
2) Erotomanic
3) Accusation
4) Grandeur
5) Reference
6) Broadcasting
7) Passivity
8) Paranoid
9) Detachment
10) Other

Erotomanic: The person believes someone is in love with them and might try to contact that person. Often it's someone important or famous. This can lead to stalking behavior.
Grandiose: This person has an over-inflated sense of worth, power, knowledge, or identity. They could believe they have a great talent or made an important discovery.
Jealous: A person with this type believes their spouse or sexual partner is unfaithful.
Persecutory: Someone who has this believes they (or someone close to them) are being mistreated, or that someone is spying on them or planning to harm them. They might make repeated complaints to legal authorities.
Somatic: They believe they have a physical defect or medical problem.
Mixed: These people have two or more of the types of delusions listed above.

Passivity Experiences: They are characterized by the belief that one's thoughts or actions are influenced or controlled by an external agent, for example when a psychotic patient is experiencing the movement of his own limbs like a passive observer (Frith, 2005).

Thought broadcasting
Delusion of self-accusation
Passivity Delusion Thought Control

New Delusions

The human causality delusion
The shape shifting (morphing) people delusion
The defective overarching philosophy delusion
The inter-reliance and conformity delusion.
The social Darwinism delusion.
The powerful secret allegiance delusion
The telepathic telekinetic sentience delusion
The constant circulation delusion (“The Thread”)

Delusions:

Getting Success & money
Common but specific famous person marriage
Talking to famous people
Having your own TV show, broadcast regularly overseas (only on satellite stations)
Everybody (the 'people' members 'articulating' VH & AVH) conspiring against all non-members (innocents and victims)
Other people being attacked and killed, often a direct result of failing to do or achieve some thing, specifically because no-one will state what this 'thing' that must be done is!
Fighting against evil in superior, aspirational, covert, "un-catchable" human form

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Sampling

- treatment-responsive and treatment-refractory
- patients with hallucinations
- Psychosis Vs schizophrenic
- later phases of illness
- Substance abuse and not
- Twenty-five participants with first-episode psychosis met inclusion criteria and consented to participate in the study. At this point of recruitment, data saturation was reached. See Table 1 for demographic and clinical description of the sample.
- eligible if they provided an analysis of lived experience of delusions or predelusional phenomena presented from the perspective of individuals (age 14–65 years) who had developed a clinical high-risk stage of psychosis, or a diagnosable affective or non-affective psychotic disorder (as clinically defined, self-reported, or assessed within the primary study).

- These results are consistent with the view that, independent of symptoms, impaired metacognition contributes to difficulties integrating information and hence impedes insight, or awareness of psychiatric challenges. Consistent with extant literature, results suggest that interventions focusing on metacognition as the target may lead to improved insight.
- According to this model, metacognitive deficits should limit insight when they interfere with abilities to form and connect ideas about: (1) changes in thoughts, emotions, and behaviors that have occurred as a result of mental illness; (2) what are the pertinent historical events related to those changes; and (3) how different historical and psychological events are and are not related.

- Source monitoring (SM) definition encompasses all the mental activities involved in making attributions about the origin of past or current subjective experiences (source memory or online SM, respectively).1 A first classification based on source discrimination identifies three main SM subtypes: (i) internal SM (ISM) discriminates mental experiences originating from

the subject, such as imagined or performed actions; (ii) external SM (ESM) discriminates between externally-generated stimuli (for instance, whether an action was presented via written or spoken words); (iii) reality monitoring (RM) differentiates whether the origin of an experience was internal or external (world/self differentiation). RM errors can be internalizing (RMi) when external stimuli are confused as internally-generated, or externalizing (RMe) when internally-generated stimuli are attributed to an external source.

- Equal numbers of male and female (except for odd number samples) diagnosed SCZ cases and controls of adult age were chosen for this purpose (Table S1). The controls were matched for the age and sex with cases,
- diagnosed neurological or psychiatric illness during their life course.
- progressive psychotic phases, the first onset of overt psychosis occurs. This period typically lasts for 5 to 10 years and is characterized by progressive deterioration as well as increased psychotic symptomatology. The chronic residual stage of schizophrenia usually begins within five to ten years following the first psychotic break. This phase includes persistence of residual "breakthrough" symptoms and disability resulting from positive, cognitive and negative symptoms. … some researchers suggest that other factors such as antipsychotic medication use and substance abuse with marijuana, tobacco, and alcohol, contribute to the structural brain changes observed in the disease.

- Must have progressed to inquiry stage of life cycle

- All patients were on antipsychotic medications and no medication changes in 1 month. None of the patients had a history of neurological disorder, active substance dependence or abuse (except for nicotine) within the past year. Seventy-three healthy controls matched for sex and age were also recruited. All HCs completed a structured clinical interview for DSM-IV axis I disorders-non-patient edition to rule out axis I conditions.

- The exclusion criteria of HCs included: (1) current or past psychiatric disorder, (2) family history of a psychotic disorder in a first-degree relative, (3)history of more than one lifetime depressive episode, (4) history of depression or antidepressant use within the last 6 months,and (5) history of lifetime antidepressant use for more than1 year, (6) recent history of substance abuse or dependence, (7)head trauma with a loss of consciousness greater than 5 min

- We invited people aged 16-84 years with experience of voice-hearing to take part via an advertisement circulated through clinical networks, hearing voices groups, and other mental health forums. We combined qualitative and quantitative methods, and used inductive thematic analysis to code the data and $\chi(2)$ tests to test additional associations of selected codes.

Phenomenology

- Source monitoring (SM) is the metacognitive ability to determine the origin of one's experiences. SM is altered in primary psychiatric psychosis, although relationships between SM subtypes, other cognitive domains and symptoms are unclear.
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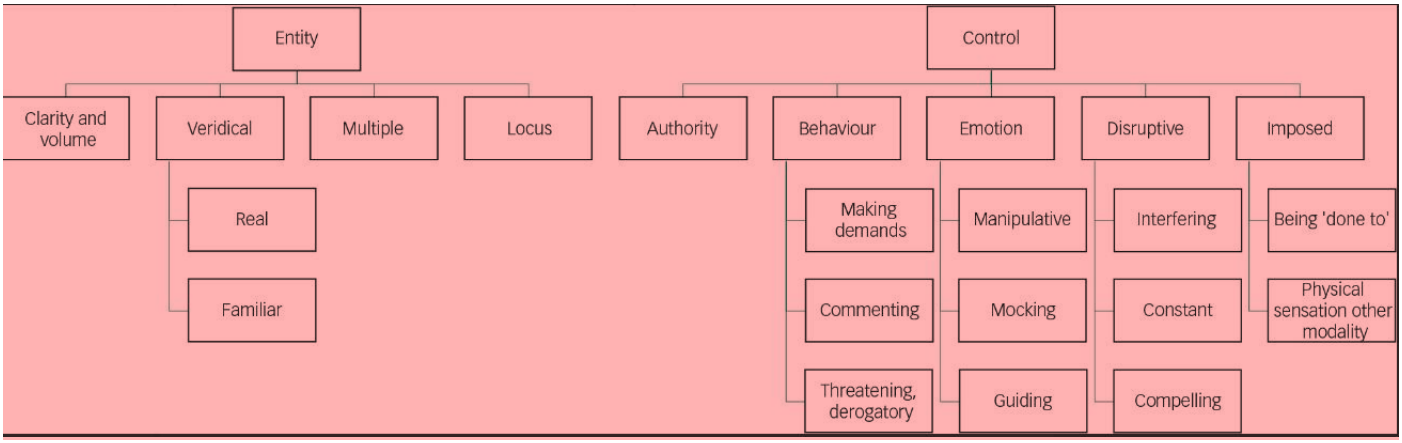
  - (i) internal SM (ISM) discriminates mental experiences originating from the subject, such as imagined or performed actions;
  - (ii) external SM (ESM) discriminates between externally-generated stimuli (for instance, whether an action was presented via written or spoken words);
  - (iii) reality monitoring (RM) differentiates whether the origin of an experience was internal or external (world/self differentiation). RM errors can be
    - internalizing (RMi) when external stimuli are confused as internally-generated, or
    - externalizing (RMe) when internally-generated stimuli are attributed to an external source.

- and metacognition contributes to difficulties integrating information and hence impedes insight tasks of metacognition appear to be associated with symptoms, functioning, and neurocognition in schizophrenia. Deficits in metacognition within the narratives of persons with schizophrenia are linked with symptoms, quality of life, neurocognition and poorer awareness of illness.



- Novel findings from our study include the extent of AVH trying to control behaviour and emotions, the experience of AVH as an entity with complex social interactions and voices being imposed on individuals and occurring with multisensory additional factors.

- a distinction between biological and cognitive factors in the generation in AVH. The biological basis for AVH (genetic predisposition and factors influencing brain development, for example childhood trauma) is dominant in psychotic patients and thereby limiting their functioning in many ways. As such, little room may be left for (intact) cognitive processes to play a part in the generation of AVH. In the non-psychotic individuals, this biological influence is weaker. …intact cognitive processes, such as semantic top-down processing, more opportunity to exert their influence and thereby possibly shaping the phenomenology or experience of AVH. Furthermore, relative intact cognitive functioning instead of cognitive impairment may even have served as a protective factor in the non-psychotic individuals,

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About Schizophrenia

- two subtypes of schizophrenia: type A (hyperdopaminergic) characterised by elevated striatal dopamine synthesis and release capacity, and type B (normodopaminergic) where these dopaminergic alterations are not present. … The proposed subtyping has several potential advantages over the current phenomenological classification or the move to dimensions. First, it is based on a neurobiological mechanism with implications for treatment choice, Second, it has clear implications for treatment: type A (hyperdopaminergic) schizophrenia will respond to dopamine-blocking drugs, whereas type B, where there is no elevation in dopamine, will not. Third, by focusing on mechanisms over phenomenology it provides a sound basis for research that has the potential to lead to new treatment options.

- Poor insight has been linked to noncompliance in participation in pharmacological treatment,11–14 duration of untreated psychosis,15,16 and low therapeutic alliance with mental health professionals.17–20 It has also been associated with additional negative outcomes including more frequent relapses,21 worsening symptoms,22,23 and poorer interpersonal and community functioning.24–27 On the other side of the coin, in what has been called the insight paradox,28 good insight has been shown to lead to depression, hopelessness, low self-esteem, low quality of life, low sense of meaning in life, and suicidality, especially when coupled with acceptance of stigma

- Schizophrenia, is a neurodevelopmental disorder, resulting from a surplus of dopamine projection to the striatum and midbrain (in the case of positive symptoms), and a deficit of dopamine projection to the prefrontal cortex (in the case of negative symptoms). An individual with this disorder may present with positive symptoms including hallucinations, (auditory, visual, olfactory, or tactile), delusions, (persecutory, referential, somatic, erotomaniac, religious, grandiose), inattention, movement disorders, paranoia, disordered thinking, or negative symptoms including anhedonia, (lack of pleasure), speech issues, flattened affect, social withdrawal, lack of follow through, and struggling to take care of their own basic needs
- The purpose of the current study is to conduct a thorough literature review of current research regarding the effects estrogen, nicotine, and amphetamines have on Schizophrenia symptoms, to determine if any of these factors are modulatory or causal. Results: Both Estradiol and Nicotine enhances the threshold of psychosis vulnerability through the down regulation of dopamine receptors, but for nicotine the effects are fleeting, as the individual's receptors will eventually become desensitized.

- Environmental factors such as microbial infections (e.g., Toxoplasma gondii) can better predict the onset of schizophrenia than polygenic risk scores. However, researchers have not been able to explain why only a small minority of infected people develop schizophrenia. The new etiological synthesis of schizophrenia indicates that an interaction between host genotype, microbe infection, and chronic stress causes schizophrenia, with neuroinflammation and gut dysbiosis mediating this etiological pathway.

- Schizophrenia is a severe mental disorder, which affects about 0.75% of the world's population (Moreno-Kustner et al., 2018), imposing an annual economic burden of more than $150 billion in the United States alone (Cloutier et al., 2016) and between 0.02% and 1.65% of GDP cross-nationally (Chong et al., 2016). Although schizophrenia is a low-prevalence disorder, it was the 12th most disabling disorder among 310 diseases and injuries globally in 2016 (Charlson et al., 2018).
- Schizophrenic patients generally have a reduced life expectancy (about 15 years shorter than the general population), lower reproductive rate, and a 22-fold increased lifetime risk of death by suicide compared with the general population (Hjorthoj et al., 2017).

- key symptom domains covering positive, negative, affective and cognitive symptoms. The patient will thus receive a diagnosis of schizophrenia and an indication of the severity of symptoms across each dimension.

- Schizophrenia is a chronic mental disorder that makes it difficult for a person to distinguish between real and false perceptions and beliefs. Symptoms can be so severe and limiting that everyday activities can be difficult to complete. Schizophrenia is currently considered an illness that exists on a spectrum and is no longer diagnosed using the subtype model.
- The American Psychiatric Association found that they were "not helpful to clinicians because patients' symptoms often changed from one subtype to another and presented overlapping subtype symptoms, which blurred distinctions among the five subtypes and decreased their validity."[6] --> Paranoid, Disorganized (hebephrenic), Catatonic, Undifferentiated, Residual

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Etiology

- We now know that the etiology of schizophrenia is multifactorial and reflects an interaction between genetic vulnerability and environmental contributors. Environmental risk factors such as pregnancy and birth complications, childhood trauma, migration, social isolation, urbanicity, and substance abuse, alone and in combination, acting at a number of levels over time, influence the individual's likelihood to develop the disorder.

- One of reasons is that schizophrenia is a highly heterogeneous disorder, reflected in diverse clinical presentations (2), complex genetic architectures (3), and various treatment responses (4). The heterogeneity hampers uncovering pathophysiology and discovering validated biomarkers
- The inter individual heterogeneity usually leads to discordant findings (7).
- Distinct subtypes of schizophrenia usually demonstrate different or even totally opposite patterns of structural/functional abnormalities (7,9–11). The heterogeneity is thought to be one of the leading causes that lead to conflicting findings in neuroimaging studies(12,13).
- Sun et al. (5) revealhigher interindividual variability of functional connectome inschizophrenia.

- A comprehensive study of the gene expression dynamics in SCZ patients, which is shared by all three brain regions (hippocampus, prefrontal cortex, and associative striatum) may plausibly give a glimpse of the disease etiology.

- Expression derangement of the genes also evidenced to arise of the gene- environment interactions during fetal development and in the lifetime of the individuals (10, 11).

- Complex interactions of genetics and environmental factors have been implicated in etiology of schizophrenia.

- Finally, both AVH groups experienced significantly more childhood trauma than healthy controls.

- The etiology of schizophrenia has not been understood and there have been no major breakthroughs in the treatment of schizophrenia for 60 years (cf. Akil et al., 2010). The heritability of schizophrenia has been estimated to be as high as 80% (Hilker et al., 2018).
- However, none of them have been able to explain, for example, why chronic stress is often a trigger of psychosis (cf. Howes and McCutcheon, 2017; Nugent et al., 2015).
- The risk profile scores constructed from alleles associated with schizophrenia explain only about 7.7% of the variation in the liability to develop schizophrenia (Legge et al., 2021)

Arguments Against Human Eminations

- In terms of neurocognitive models of AVH experience in psychosis, self-monitoring deficits may explain positive symptoms including hallucinations and passivity phenomena in schizophrenia with sensory confusion of self from non-self. Reference McGuire, David, Murray, Frackowiak, Frith and Wright
- With a self-generated thought or movement, accompanying signals to the sensory and motor cortex inform parts of the brain about an intended action, allowing the sensory areas to predict this possibility and code the sensory consequences as the expected consequence of this action. Allen et al Reference Allen, Modinos, Hubl, Shields, Cachia and Jardri33 suggested that in schizophrenia there is a predictive coding error that accounts for the perceived externality or misattribution of internally generated speech to an external source. Thus, this may explain the realness and auditory quality of voices. The development of complex social interactions with voices are highlighted in our results and this area remains open to investigation.

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